

AS BUILT REQUIREMENTS

Upon completion of public improvements, the contractor must call for a final inspection and submit two (2) complete sets of as-built drawings to the City of Charleston Engineering Division. Inspectors and the contractor will do a walk-through of the project and develop a punch-list of items to be completed. Additional punch list items may be generated based on as-built review.

In the event that as-built drawings indicate significant variations from approved design plans, drainage calculations shall be revised to demonstrate compliance with all stormwater management regulations.

Final inspections require at least 48 hours notice. Allow at least one (1) week for initial review of as-built drawings. Final plat approval is dependent upon approval of the as-built drawings and satisfactory completion of all punch list items.

The as-built drawings shall be a reproducible copy of the originally approved plan annotated to reflect changes from the approved design. Any change from the original project title shall be clearly noted on the cover sheet. The as-built drawings shall contain the following information:

1) Piped Drainage Systems

- a) Enter actual values beside planned values on the approved plan.
- b) Show elevations to the nearest 0.01'. Actual elevations within 0.10' of the planned values are sufficient except where higher accuracy is needed to indicate positive flow.
- c) Diameter, material and class of all pipes.
- d) Type of joint of all pipes (O-Ring, T&G, etc.).
- e) Invert of pipe at outfall and all structures.
- f) Slope and lengths of all pipe.
- g) Structure type and elevations (top of grate, throat elevation, etc.)
- h) Location of all pipe and structures in relation to drainage easements on plan view.
- i) Centerline roadway elevations at all low points and other stormwater crossings.
- j) Length, depth and width of all outfall protection as specified.

2) Open Channel Drainage Systems

- a) Enter actual values beside planned values on the approved plan.
- b) Show elevations to the nearest 0.01'. Actual elevations with 0.10' of planned values are sufficient except where higher accuracy is needed to indicate positive flow.
- c) Slope of all open channels.
- d) For swales 1' or less in depth, show actual side slopes and spot invert elevations at a frequency of no more than every 100'.

AS BUILT REQUIREMENTS
(continued)

- e) For swales or ditches greater than 1' in depth, show top of bank and toe of slope designations and elevations at a frequency of no more than every 100'.
 - f) For ditches 3' or greater in depth, generate actual 1' contours.
 - g) Location of ditch or swale in relation to drainage easements on plan view.
 - h) Length, depth and width of all outfall protection or other erosion control as specified.
- 3) Stormwater Management Pond or Basin
- a) Enter actual values beside planned values on the approved plan.
 - b) Show elevations to the nearest 0.01'. Actual elevations with 0.10' of planned values are sufficient except where higher accuracy is needed to indicate positive flow.
 - c) Sufficient elevations along top of dam/pond to verify design elevation.
 - d) Sufficient elevations along toe of slope and bottom of pond to verify design elevation.
 - e) Generate actual 1' contours and provide a stage-volume table to confirm design volume.
 - f) Verify pond slopes and vegetative cover.
 - g) Location, elevations, slopes and dimensions of all orifices, weirs, spillways, trash racks or any other aspects of outfall control.
 - h) Location, dimensions and elevations of emergency spillway.
 - i) Outfall protection location and dimensions.
 - j) Water elevation in pond at time of survey, if applicable.
- 4) Certifications Statement

The Record As-Built Drawing must include the following statement:

"I hereby sign and affix my seal to certify to the best of my knowledge that this As-Built Drawing accurately represents existing field conditions and that the comprehensive stormwater management system as constructed is in conformance with the standards, dimensions and specifications of the approved design plans."

SC Registered Professional Engineer